

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

22k



MASTER BALL JOINT & UNIVERSAL JOINT PRESS SET



57996

Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. **SAVE THIS MANUAL.**

WARNING SYMBOLS AND DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
 DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION



WARNING Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in serious injury.

Save all warnings and instructions for future reference.

- Keep children and bystanders away while operating.**
Distractions can cause you to lose control.
- Keep work area clean and well lit.
Cluttered or dark areas invite accidents.
- Wear ANSI-approved safety goggles, NIOSH-approved dust mask/respirator, and heavy-duty work gloves during use and service.**
- Stay alert and use common sense when operating.
Do not use when tired or under the influence of drugs, alcohol or medication.
- Do not overreach. Keep proper footing and balance at all times. This enables better control in unexpected situations.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- This product is not a toy. Keep it out of reach of children.**
- Use the correct product for the correct vehicle.
The correct product will do the job better and safer at the rate for which it was designed.
Do not modify this product or use it for a purpose for which it is not intended.
- Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the product's operation. If damaged, have the product repaired before use.
- Use the product and accessories etc., in accordance with these instructions and in the manner intended for the particular type of product, taking into account the working conditions and the work to be performed. Use of the product for operations different from those intended could result in a hazardous situation.
- Have product serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Maintain labels and nameplates on the product. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- Use caution when applying a load. Slowly and carefully apply pressure to the vehicle part being pressed. If the workpiece seems unusually hard to press, immediately stop the operation. Carefully disconnect the Press Set from the workpiece, and adjust the Press Set to eliminate or diminish an off-center load. Then, continue with the procedure.
- Do not use the Press Set to compress springs or any other that could disengage and cause a potential hazard.

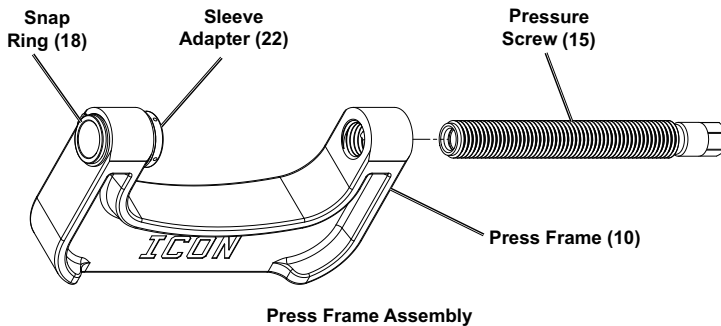
15. Do not allow any lubricants to make contact between any part of the Press Set and the part being pressed. Lubricants of any type on the above mentioned parts will diminish the ability of the Press Set to firmly and safely grip and hold the Press Set in position.
16. Examine the Press Set for structural cracks, bends, and any other condition that may affect the safe operation of the tool. Do not use the Press Set even if minor damage appears.
17. Read and understand all instructions and safety precautions as outlined in the manufacturer's manual for the vehicle you are servicing. Use the vehicle manufacturer's recommended ball joint press points.
18. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



SAVE THESE INSTRUCTIONS.

Press Frame Assembly

1. Insert Sleeve Adapter (22) through hole of Press Frame (10).
 2. Use pliers (sold separately) to attach Snap Ring (18) to end of Sleeve Adapter. Place Snap Ring in the groove of the Adapter - securing the Adapter to the Press Frame.
- Note:** The Pressure Screw (15) is screwed into the Press Frame at the factory.



Operating Instructions

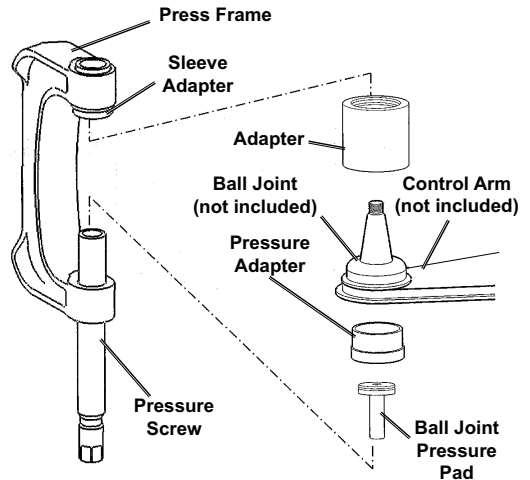


Read the **ENTIRE WARNING** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Note: Read vehicle service manual to determine how to prepare the Ball Joint or U-Joint for removal from a specific vehicle make/model. The generic instructions that follow may, or may not apply to your vehicle.

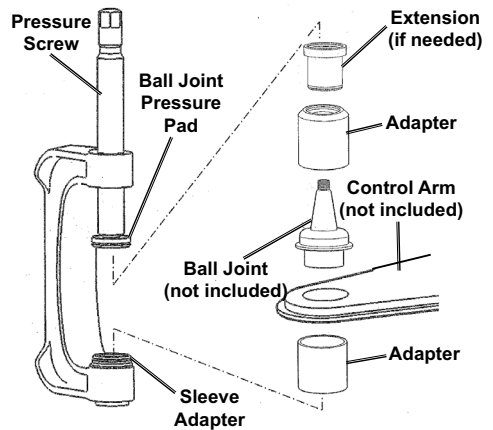
Ball Joint Removal

1. Refer to "Parts List & Diagram" on page 7 for selection of proper Adapter for removal of ball joint on vehicle.
2. Insert selected Pressure Pad into Pressure Screw, pushing it all the way in.
3. Attach selected Pressure Adapter to Pressure Pad until it clicks in.
4. Attach selected Adapter to Sleeve Adapter until it clicks in.
5. Place the Press Frame around the vehicle's Control Arm and Ball Joint.
6. Tighten the Pressure Screw until the Adapter contacts the Control Arm and the Pressure Adapter makes contact with the Ball Joint.
7. Check the alignment of the Press Frame. When properly aligned, continue tightening the Pressure Screw until the Ball Joint is removed.



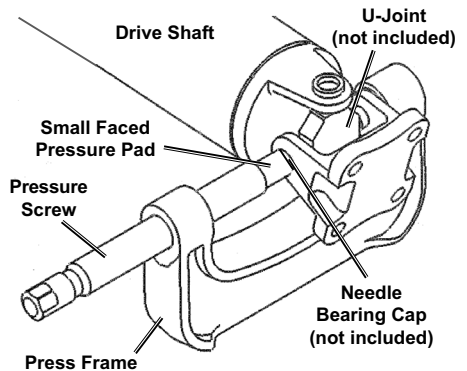
Ball Joint Installation

1. Clean the vehicle's control arm, and coat the inside diameter of the control arm with lubricant.
2. Place the replacement Ball Joint as straight as possible into the vehicle's control arm.
3. Refer to "Parts List & Diagram" on page 7 for selection of proper Adapters for installation of ball joint on vehicle.
4. Attach selected Adapters as described in "Ball Joint Removal" on page 4. Be sure they click in place. Use an Extension between the Adapter and Ball Joint Pressure Pad if more length is needed.
5. Position Press Frame around the vehicle's Control Arm and Ball Joint. Tighten the Pressure Screw until the Adapter on the Pressure Screw side makes contact with the outer rim of the Ball Joint, and the Adapter on the other side makes contact with the Control Arm.
6. Check the alignment of the Press Frame and when properly aligned, continue to tighten the Pressure Screw until the Ball Joint is firmly sealed.



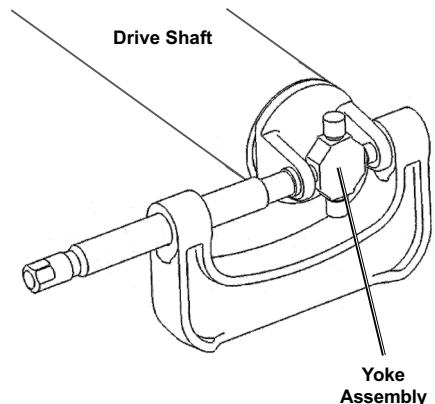
Universal Joint Removal

1. If necessary, remove Ball Joint Pressure Pad from Pressure Screw and insert Small Faced Pressure Pad, pushing it all the way in.
2. Securely support the Drive Shaft yoke assembly and remove all external and/or internal locking rings.
3. Refer to "Parts List & Diagram" on page 7 for selection of proper Adapters for removal of U-Joint. Then, attach selected Adapter (one or more as necessary) making sure it clicks in place.
4. Position Press Frame around Drive Shaft and align Pressure Pad to face of the Needle Bearing Cap on the U-Joint.
5. Tighten Pressure Screw until one side of the U-Joint has been completely pressed out of the yoke assembly. Then, reposition the Press Frame (as described in Step 4) and remove the remaining sides of the U-Joint.



Universal Joint Installation

1. Refer to "Parts List & Diagram" on page 7 for selection of proper Adapters for installation of U-Joint. Then, attach selected Adapter (one or more as necessary) making sure it clicks in place.
2. Securely support the Drive Shaft yoke assembly.
3. Following the manufacturer's instructions, carefully lubricate the new U-Joint.
4. If necessary, remove Ball Joint Pressure Pad from Pressure Screw and insert Small Faced Pressure Pad, pushing it all the way in.
5. Put the new U-Joint in place.
6. Position the Press Frame around the Yoke assembly and U-Joint.
7. Tighten the Pressure Screw until the Pressure Pad makes contact with the face of the Needle Bearing Cap on the U-Joint.
8. Check alignment of the Press Frame and when properly aligned, tighten Pressure Screw until one side of the U-Joint has been completely pressed into the Yoke assembly. **Do not over tighten** as damage to the U-Joint and reduced service may occur.
9. Reposition the Press Frame and check alignment. Tighten Pressure Screw until the other side of the U-Joint has been completely pressed into the Yoke assembly. **Do not over tighten** as damage to the U-Joint and reduced service may occur.
10. Reinstall the external and/or internal locking rings.



Cleaning, Maintenance, and Lubrication

Do not perform any inspection, maintenance or cleaning procedures when the Press Set is under a load.

1. **BEFORE EACH USE**, inspect the general condition of the Press Set. Check for misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment.
2. **PERIODICALLY**, use a premium quality and light weight machine oil to lubricate the threads of the Pressure Screw. Use the Grease Fitting on the side of the Press Frame to apply grease to the Pressure Screw threads.
3. **AFTER USE**, wipe clean with a damp cloth, using a mild detergent or mild solvent.
4. When storing, keep Press Set in its Carry Case.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Product's Serial Number Here:_____

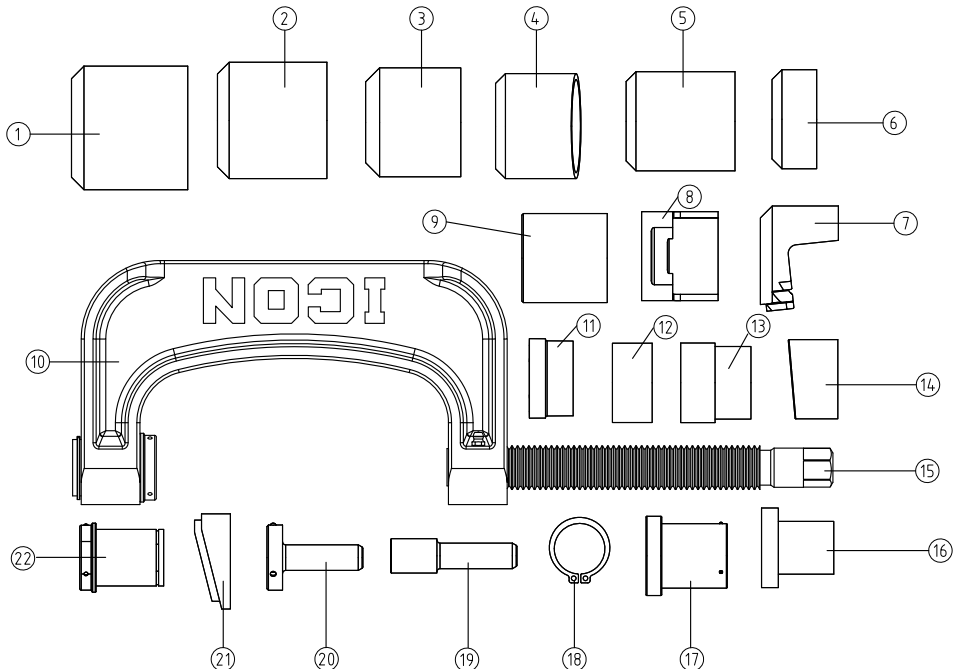
Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175430564 when ordering parts.

Parts List & Diagram

Part	Description	Qty
1	Adapter 79.2x71.2x74.5L	1
2	Adapter 74.52x68.3x70L	1
3	Adapter 69.8x61.6x61L	1
4	Adapter (Angle) 67.3x59.7x54.7L	1
5	Adapter 63.5x57.1x69.8L	1
6	Adapter 63.5x57x28.6L	1
7	Adapter 72.4x54.22x50L	1
8	Adapter 57.5x50x49.4L	1
9	Adapter 57.1x51x54.7L	1
10	Press Frame	1
11	Adapter 50.8x42.6x28L	1

Part	Description	Qty
12	Adapter 50.8x45x25.5L	1
13	Adapter 51x44.8x45L	1
14	Adapter (Angle) 50.8x46.7x31.8L	1
15	Pressure Screw 1-1/8"-7UNCx247.3L	1
16	Adapter 50.8x22.8x46.3L	1
17	Extension 50.8x29.8x52L	1
18	Snap Ring	1
19	Small Faced Pressure Pad 22x16.4x81L	1
20	Ball Joint Pressure Pad 41.8x16.4x61.5L	1
21	Adapter 61x50.8x23L	1
22	Sleeve Adapter 44.25x27.8x53.8L	1
23	Carry Case (not shown)	1



ICON™ TOOL LIMITED LIFETIME WARRANTY

Harbor Freight Tools makes every effort to assure that its products meet the highest quality and durability standards. Harbor Freight Tools warrants to the original purchaser of this ICON™ Tool that the parts and components of the ICON™ Tool will be free from defects in material and manufacturing workmanship during the ICON™ Tool's useful life. If the parts or components do not perform in accordance with this warranty, Harbor Freight Tools will provide the parts necessary to put the ICON™ Tool back in working order. Replacement parts may be obtained by calling 1-888-866-5797 or by e-mailing productsupport@harborfreight.com. Proof of purchase (original sales receipt) from the original consumer purchaser must accompany all warranty claims.

This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, unauthorized repair, improper installation, improper storage, normal wear and tear, neglect, alteration or modification, or to lack of maintenance. This warranty is in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness. Harbor Freight Tools is not liable for incidental, indirect, special, consequential, or punitive damages or costs arising from the use of this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

